## RATIO CALCULATIONS AND SHUTDOWN SUMMARY MAY 2009 MIDCO I AND II SITES GARY, INDIANA

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Parameter	Units	Midco I Site	Midco II Site	Deep Well Site
HP/UV flow rate <sup>1</sup>	gpm	21 to 37	50.6 to 60	
HP/UV operating lamps	count	2	4	
UV tube cleaning cycle	hours	2.0	2.0	
Hydrogen peroxide feed	ppm	325	120	
pH, inlet to HP/UV unit	pH units	7.3	7.1	
Extraction well flow rates as of 5-31-09			550	
EW-1	gpm	9.0	2.0	
EW-2	gpm	9.0	7.0	
EW-3	gpm	4.0	7.0	
EW-4	gpm	2.0	6.2	
EW-5	gpm	4.0	N/A	
EW-6	gpm	2.0	2.1	
EW-7	gpm	9.0	1.1	
MW-3D	gpm	OFF	N/A	
MW-5D	gpm	OFF	N/A	
MW-6D	gpm	4.0	N/A	
Extraction well flow rates necessary for capture <sup>2</sup>			11112	
EW-I	gpm	6.4	13.0	
EW-2	gpm	6.4	13.0	
EW-3	gpm	N/A	16.9	
EW-4	gpm	1.0	8.0	
EW-5	gpm	N/A	N/A	
EW-6	gpm	1.7	5.7	
EW-7	gpm	6.4	9.1	
Range of detections from field gas chromatograph		0.1	7.1	
Methylene chloride	μg/L	< 5.0	N/A	
Vinyl chloride	μg/L	< 2.0	N/A	
Treatment operating flow rate less tube cleaning	gpm	31.4 to 36.3	49.8 to 59.7	
Total treated water volume <sup>3</sup>	gallons	1,460,260	1,177,940	2,638,200
Design average flow rate <sup>4</sup>	gpm	28.0	50.6	78.6
Design average now rate	24 500 22	1990000		/8.0
Month duration and operating time for average monthly flow rate calculation	days minutes	31 44,640	31 44,640	
Non-GWETS-related shutdowns (pages 2 & 3)	minutes	0	520	
Annulus & pipeline testing shutdowns	minutes	0	0	
Operating time for average monthly operating flow rate calculation	minutes	44,640	44,120	
GWETS-related shutdown - scheduled & non-scheduled (see pages 2 and 3)	minutes	1,724	3,070	
Operation time excluding all shutdowns	minutes	42,916	41,050	
Average monthly operating flow rate <sup>5</sup>	gpm	32.7	26.7	59.4
% average monthly operating flow rate to design average flow rate	%	116.8%	52.8%	75.6%
		32.7	26.4	/5.6% 59.1
Average monthly flow rate <sup>6</sup>	gpm	1275997	5202	((55))-5
% average monthly flow rate to design average flow rate	%	116.8%	52.1%	75.2%
Waste materials stored on-site for off-site disposal				
Spent filters	cubic yards	5	4	
Anticipated off-site shipment week of		June 29, 2009	July 27, 2009	
Waste shipments this month	T v	May 11, 2009	None	
Filter cake	cubic yards	N/A	10	
Anticipated off-site shipment week of		N/A	August 17, 2009	
Waste shipments this month		N/A	None	
Other wastes (specify):		None	None	
Anticipated off-site shipment week of		N/A	N/A	
Waste shipments this month		None	None	

HP/UV = Hydrogen peroxide/ultraviolet light

GWETS = Ground water extraction and treatment system

gpm = Gallons per minute

μg/L = Micrograms per liter

N/A = Not applicable

## Notes:

- HP/UV flow rate is the process water flow rate that goes through the HP/UV.
- <sup>2</sup> Extraction wells EW-3 and EW-5 at the Midco I Site are used for dewatering purposes only.
- <sup>3</sup> Total treated water volume is obtained from the site treated water flow totalizer.
- <sup>4</sup> Design average flow rate is the model-predicted flow rates of 21.0 or 50.6 gpm, respectively for the Midco I and Midco II Sites. The design average flow rates changed on February 24, 2003 from 24.5 to 50.6 gpm for Midco II. The Midco I design average flow rate varies between 21 and 28 gpm, based on dewatering.
- <sup>5</sup> Average monthly operating flow rate is the total treated water volume divided by the operating time excluding all non-GWETS-related shutdowns. This value is different from the HP/UV flow rate because of the flow recycled during the tube cleaning.
- <sup>6</sup> Average monthly flow rate is the totalized volume of treated water divided by the number of minutes for that month.